

REMARKS/ARGUMENTS

Claims 1-60 were in the application as filed. Claims 31-46 and 48-50 have been canceled without prejudice pursuant to a requirement for restriction. Claims 1-7, 10-30, 47, 51-55, and 58-60 stand rejected. Claims 8, 9, 56, and 57 stand objected to as allegedly dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants express their appreciation to the Examiner for the early notification of allowable subject matter.

In this paper, claims 1, 2, 8, 31-50, and 56 have been canceled without prejudice. Claims 3-7, 9, 10, 12, 13, 15-20, 27-30, 51, and 52 have been amended. New claims 61-65 have been added. Claim 61 is essentially claim 8 rewritten to include the limitations of base claim 1 and claims 2 and 7. Claim 62 is essentially claim 56 rewritten to include the limitations of base claim 47 and claims 51, 52, and 55. Claims 63-65 include the limitation of an image sensor providing an output that is indicative of lighting conditions.

The amendments made herein add no new matter. Any amendment to the claims which has been made in this Amendment and Response, and which has not been specifically noted to overcome a rejection based on prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to be attached thereto. Reconsideration and reexamination of the application is respectfully requested in view of the amendments and the following remarks.

Requirement for Restriction

The Examiner has required restriction between two alleged inventions: combination I, described in claims 1-30, 47, and 51-60, and subcombination II, described in claims 31-46 and 48-50. In a telephone interview on March 31, 2008, Applicants provisionally elected without traverse invention I, claims 1-30, 47, and 51-60 for prosecution. This election is affirmed. Thus, claims 31-46 and 48-50 have been canceled without prejudice.

Claim Rejections - 35 U.S.C. §112, ¶2

Claims 17-20 stand rejected under 35 U.S.C. §112, ¶2, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection is traversed.

Claim 17 recites the limitation "the at least one light source". The Examiner asserts that there is insufficient antecedent basis for this limitation in the claim, and that Applicants may have intended claim 17 to be dependant upon claim 16 rather than claim 14, as currently written.

The Examiner also suggests that amending claim 17 to depend from claim 16 would resolve the current lack of antecedence.

Claim 17 has been amended and now depends upon claim 16, which provides proper antecedence for claim 17. Applicants request withdrawal of the rejection, and the allowance of claim 17.

Claims 18-20 recite the limitation "the light emitting diode". The Examiner asserts that there is insufficient antecedent basis for this limitation in the claim, and that Applicants may have intended claims 18-20 to be dependant upon claim 17 rather than claim 15 as currently written. The Examiner also suggests that an amendment so that claims 18-20 depend upon claim 17 would resolve the current lack of antecedence.

Claims 18-20 have been amended and now depend upon claim 17, which provides proper antecedence for claims 18-20. Applicants request withdrawal of the rejection, and the allowance of claims 18-20.

Claim Rejections - 35 U.S.C. §102(b)

Claims 1, 2, 7, 10, 13-18, 24, 26, 27, 47, 51, 52, 55, and 58-60 stand rejected under 35 U.S.C. 102(b) as allegedly anticipated by U.S. Patent No. 5,982,423 to Sekiguchi. The rejection is traversed.

Claims 1, 2, and 47 have been canceled without prejudice. Thus, the rejection is moot as to claims 1, 2, and 47. Applicants request withdrawal of the rejection as to claims 1, 2, and 47.

Sekiguchi '423 discloses a video camera able to transmit infrared rays (hereinafter "IR") to enable the camera to record images in low-light conditions. The camera comprises lenses, an IR filter, a CCD (i.e. a charge-coupled device) sensor, a video signal processor, recording media, a signal reproducing unit, an audio/visual transmission modulator, an IR emitter, a transparent glass, a sensitivity switching operation unit, and a sensitivity switching interlocked switching unit. The CCD sensor generates an output signal in response to light striking the filter after passing through the lenses and, selectively, the IR filter. The output signal is processed by the video signal processor and recorded onto recording media. Audio signals are also recorded onto recording media. The IR emitter is provided with an IR source, such as an IR LED. The audio/visual transmission modulator modulates the audio and video signals reproduced in the signal reproducing unit into an IR audio/visual transmission format. IR emitted from the IR emitter are modulated into the IR audio/visual transmission format and transmitted to a monitor, such as a television receiver, for broadcasting a visual display and audio signals.

The sensitivity switching operation unit moves the IR filter and transparent glass into and out of the optical path of the camera. The sensitivity switching interlocked switching unit selectively controls the camera circuitry so that IR emitted from the IR emitter are not modulated by the audio/video transmission modulator. Thus, in low-light conditions, operation of the sensitivity switching operation unit in a high sensitivity mode results in non-modulated IR from the IR emitter being irradiated onto the object to be recorded. The transparent glass will be positioned to intersect the optical path and enable IR reflecting off the object to be recorded to strike the CCD sensor. In high-light or normal light conditions, the IR filter intersects the optical path to prevent IR from striking the CCD sensor.

The claimed invention is not anticipated under §102 unless each and every element of the claimed invention is found in the prior art. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986). To anticipate, a single reference must teach each and every limitation of the claimed invention. *Eolas Technologies Inc. v. Microsoft Corp.*, 399 F.3d 1325, 1335; 73 U.S.P.Q.2D (BNA) 1782 (Fed. Cir. 2005). The identical invention must be shown in as

complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The sole independent claims, i.e. claims 1 and 47, have been canceled, and replaced by claims 61 and 62. The claims formerly depending from claim 1 now depend primarily from claim 61, and from claims 63 and 65. The Examiner has indicated that claim 61 is allowable. Thus, claims 63, and 65 will be discussed in view of Sekiguchi '423.

Claim 63, in pertinent part, calls for an image sensor providing an image sensor output that is indicative of lighting conditions in the vicinity of the camera, and an IR filter that is movable to control transmission of the IR radiation to the image sensor in response to the image sensor output. Sekiguchi '423 does not disclose an image sensor providing an image sensor output that is indicative of lighting conditions in the vicinity of the camera, and moving an IR filter in response to the image sensor output. Sekiguchi '423 discloses a sensitivity switching operating unit and a sensitivity switching interlocked switching unit which are used to move an IR filter, and control modulation of IR emitted from the IR emitter, respectively. These two units are separate units and are not a part of the image sensor: "When the ambient state of the object is dark (at the time of a low luminance), in order to raise a sensitivity of the camera portion, a sensitivity switching operating unit 10 and sensitivity switching interlocked switching unit 11 are added to the video photographing apparatus of the invention shown in FIG. 1." *Sekiguchi '423, col. 3, ln. 60-65; (emphasis added)*. Sekiguchi '423 first describes components which are common to conventional cameras, which include the lenses, the IR filter, the CCD sensor, the video signal processor, the recording media, the signal reproducing unit, the audio/visual transmission modulator, the IR emitter, and the transparent glass. *Sekiguchi '423, col. 3, ln. 12-59*. Sekiguchi '423 then describes the components which are not common, i.e. the sensitivity switching operating unit, and the sensitivity switching interlocked switching unit. *See, Sekiguchi '423, col. 3, ln. 60-65, cited above*.

Even if the sensitivity switching operating unit and the sensitivity switching interlocked switching unit were considered part of the image sensor, nothing in Sekiguchi '423 even

suggests that their operation is based upon an image sensor output. Because Sekiguchi '423 does not disclose an image sensor providing an image sensor output that is indicative of lighting conditions in the vicinity of the camera, or an IR filter that is movable to control transmission of the IR radiation to the image sensor in response to the image sensor output, claim 63 is not anticipated by Sekiguchi '423.

Claim 63 is patentable over Sekiguchi '423. Claims 7, 10, 13-18, 24, 26, 27, and 64 depend, directly or indirectly, from claim 63 and are, for the same reasons, patentable over Sekiguchi '423. Applicants request withdrawal of the rejection and the allowance of claims 7, 10, 13-18, 24, 26, 27, and 64.

Claim 65, in pertinent part, calls for an image sensor with an associated viewing area, the image sensor providing an image sensor output that is indicative of lighting conditions in the viewing area, and an IR filter that selectively prevents or does not prevent exposure of the image sensor to IR radiation in response to the image sensor output. As discussed above, Sekiguchi '423 does not disclose an image sensor providing an image sensor output that is indicative of lighting conditions in the camera viewing area, or an IR filter that selectively prevents or does not prevent exposure of the image sensor to IR radiation in response to the image sensor output. Thus, claim 65 is not anticipated by Sekiguchi '423.

Claim 65 is patentable over Sekiguchi '423. Claims 51, 52, 55, and 58-60 depend, directly or indirectly, from claim 65 and are, for the same reasons, patentable over Sekiguchi '423. Applicants request withdrawal of the rejection and the allowance of claims 51, 52, 55, 58-60, and 65.

Claim Rejections - 35 U.S.C. §103(a)

Claims 3, 4, 53, and 54 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Sekiguchi '423 in view of U.S. Patent Application Publication No. 2001/0000674 of Yasuda. The rejection is traversed.

Yasuda '674 discloses an auto-focus device for a video camera. The lighting characteristics of the videographic subject can result in an image signal having a high degree of noise that can affect the performance of the auto-focus system. One embodiment of the invention comprises a process for controlling focus when the subject has a high luminance, i.e. readily radiates or reflects light. Another embodiment comprises a process for controlling focus when the subject is under low illumination. Both processes utilize a luminance/illumination detecting device, which is a different component than an image pickup device. Both processes control the direction and timing of movement of a focusing lens in response to the lighting characteristics, thereby quickly and accurately bringing the camera into focus.

To establish a *prima facie* case of obviousness, several basic criteria must be met. Under *Graham v. John Deere*, 383 U.S. 1; 86 S. Ct. 684; 15 L. Ed. 2d 545 (1966), it is necessary to 1) determine the scope and content of the prior art; 2) ascertain the differences between the prior art and the claims at issue; 3) resolve the level of ordinary skill in the pertinent art; and 4) evaluate evidence of secondary consideration. Additionally, the obviousness evaluation will be informed by a showing of teaching, suggestion, or motivation that would lead a person of ordinary skill in the art to combine the prior art to meet the claimed subject matter, although a rigid application of this showing is not required. The obviousness analysis must be explicit, and it is necessary to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. ___; 127 S. Ct 1727; 82 U.S.P.Q.2d (BNA) 1385 (2007). Secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., may be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. *Graham, supra*, 383 U.S. at 17-18.

Claims 3 and 4 depend from claim 61, which the Examiner has indicated is allowable. Thus, claims 3 and 4 are allowable. Applicants request withdrawal of the rejection, and the allowance of claims 3 and 4.

Claims 53 and 54 depend from claim 65. As discussed above, Sekiguchi '423 does not disclose **an image sensor providing an image sensor output that is indicative of lighting conditions** in the camera viewing area, or an IR filter that selectively prevents or does not prevent exposure of the image sensor to IR radiation in response to the image sensor output as called for in claim 65. Yasuda '674 also does not disclose **an image sensor providing an image sensor output that is indicative of lighting conditions** in the camera viewing area, or an IR filter that selectively prevents or does not prevent exposure of the image sensor to IR radiation in response to the image sensor output. Yasuda '674 discloses the use of a device for determining lighting conditions that is different from the device used to capture an image. Thus, Yasuda '674 does not disclose a single image sensor providing an output that is indicative of lighting conditions. Since neither Sekiguchi '423 nor Yasuda '674 individually discloses these limitations of claim 65, the combination of Sekiguchi '423 and Yasuda '674 does not disclose these limitations. Thus, claim 65 is patentable over Sekiguchi '423 in view of Yasuda '674.

Since claims 53 and 54 depend from claim 65, they are, for the same reasons, patentable over Sekiguchi '423 in view of Yasuda '674. Applicants request withdrawal of the rejection, and the allowance of claims 53 and 54.

Claim 5 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423 in view of U.S. Patent No. 7,170,547 to Uchiyama et al. The rejection is traversed.

Claim 5 depends from claim 61, which the Examiner has indicated is allowable. Thus, claim 5 is allowable. Applicants request withdrawal of the rejection, and the allowance of claim 5.

Claim 6 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423 in view of Japanese Patent No. JP 01105686 to Tanii. The rejection is traversed.

Claim 6 depends from claim 61, which the Examiner has indicated is allowable. Thus, claim 6 is allowable. Applicants request withdrawal of the rejection, and the allowance of claim 6.

Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423 in view of U.S. Patent No. 4,695,878 to Levine et al. The rejection is traversed.

Claims 11 and 12 depend from claim 61, which the Examiner has indicated is allowable. Thus, claims 11 and 12 are allowable. Applicants request withdrawal of the rejection, and the allowance of claims 11 and 12.

Claims 19 and 20 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423 in view of U.S. Patent No. 6,942,151 to Ehrhart. The rejection is traversed.

Claims 19 and 20 depend from claim 61, which the Examiner has indicated is allowable. Thus, claims 19 and 20 are allowable. Applicants request withdrawal of the rejection, and the allowance of claims 19 and 20.

Claim 21 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423 in view of U.S. Patent No. 6,172,600 to Kakinami et al. The rejection is traversed.

Claim 21 depends from claim 61, which the Examiner has indicated is allowable. Thus, claim 21 is allowable. Applicants request withdrawal of the rejection, and the allowance of claim 21.

Claims 22, 23, 25, and 28 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423 in view of U.S. Patent No. 6,550,949 to Bauer et al. The rejection is traversed.

Claims 22, 23, 25, and 28 depend from claim 61, which the Examiner has indicated is allowable. Thus, claims 22, 23, 25, and 28 are allowable. Applicants request withdrawal of the rejection, and the allowance of claims 22, 23, 25, and 28.

Claims 29 and 30 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Sekiguchi '423. The rejection is traversed.

Claims 29 and 30 depend from claim 61, which the Examiner has indicated is allowable. Thus, claims 29 and 30 are allowable. Applicants request withdrawal of the rejection, and the allowance of claims 29 and 30.

CONCLUSION

For the reasons discussed above, all claims remaining in the application are allowable over the prior art. Early notification of allowability is requested. If there are any remaining issues which the Examiner believes may be resolved in an interview, the Examiner is invited to contact the undersigned.

Respectfully submitted,
ROBERT L. BINGLE ET AL.

Dated: August 25, 2008

/Michael F Kelly/
Michael F. Kelly, Reg. No. 50,859
MCGARRY BAIR PC
32 Market Avenue, SW; Suite 500
Grand Rapids, Michigan 49503
Telephone: (616) 742-3500
mfk@mcgarrybair.com